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10/006,072	12/05/2001	Shaun Clem	6979-0009	8815

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EXAMINER

MOORE JR, MICHAEL J

ART UNIT PAPER NUMBER

2666

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/006,072

Applicant(s)

CLEM ET AL.

Examiner

Michael J. Moore, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statements (IDS) submitted on 7/18/05, 6/27/05, 6/23/05, and 12/10/02 are in compliance with the provisions of 37 CFR 1.97.

Accordingly, the examiner has considered the information disclosure statements.

Drawings

2. The drawings are objected to because of the following informalities: Currently Figures 1-5 contain some elements in handwritten form, which are unclear. It is suggested by Examiner that a more formal version of these drawings be submitted in response to this Office Action.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the

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applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: On page 1, line 2 of the *Background of the Invention* section, there is some confusion regarding the phrase "a switching fabric which sends switches the data". It is believed that there is an extra unneeded word present. On page 2, line 1 of the *Summary of the Invention* section, the word "a" is needed between words "provide" and "switching". Lastly, on page 4, paragraph 2, line 2, there is a space needed in "500Hincludes".

Appropriate correction is required.

Claim Objections

4. Claim 1 is objected to because of the following informalities:
On line 8, an objection is made to the phrase "a said ring". It is unclear whether this limitation is referring to "a ring of data ports" on line 4, or another ring. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

6. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Regarding claim 1, the phrase "for example" on lines 2 and 3 renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

8. Claim 4 recites the limitation "said port" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is unclear which port that this limitation is referring to.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Brewer et al. (U.S. 5,859,975) ("Brewer"). Brewer teaches all of the limitations of the specified claims with the reasoning that follows.

Regarding claim 1, "a switching network for receiving and transmitting data packets" is anticipated by the switching network of nodes (10-1, 10-2, 10-3) shown in Figure 4.

"A ring of data ports" is anticipated by ring 401 of Figure 4, which connects ports A-E of crossbars 11, 41, and 42.

"Crossbar means for connecting the ports for switching the frames from an input port to an output port" is anticipated by crossbars 11, 41, and 42 (crossbar means) of

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Figure 4 that connect ports A-E of nodes 10-1, 10-2, and 10-3 for the sending of data as spoken of on column 3, lines 9-25.

Lastly, “means for successively interconnecting one port to an adjacent port in said ring for forming a said ring for passing said messages from an input port, successively through intermediate ports to a destination output port, said frames and messages being processed simultaneously” is anticipated by crossbars 11, 41, and 42 (means) of Figure 4 that connect ports A-E of nodes 10-1, 10-2, and 10-3 for the sending of data as spoken of on column 3, lines 9-25 as well as column 5, lines 6-35.

Regarding claim 2, “parser means for separating the frames from the messages to form two separate data streams” is anticipated by the multi-ported dual crossbar 11 of Figure 2 that separates requests from responses (separate data streams) as spoken of on column 5, lines 60-67.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims **3 and 4** are rejected under 35 U.S.C. 103(a) as being unpatentable over Brewer et al. (U.S. 5,859,975) ("Brewer") in view of Szczepanek et al. (U.S. 6,621,818) ("Szczepanek").

Regarding claim **3**, Brewer teaches the switching network of claim **1**. Brewer does not explicitly teach clock means for moving messages one port for every clock pulse. However, Szczepanek teaches a network switching system in a ring configuration where a clock signal is used for sending data between ports as shown in Figure 7 and spoken of on column 13, lines 26-40. These references are considered to be analogous art as they are both pertaining to network switching using a port ring configuration.

At the time of the invention, it would have been obvious to someone skilled in the art to combine the clock signaling of Szczepanek with the system of Brewer in order to provide synchronous reception of transmitted data signals as spoken of on column 13, lines 33-40 of Szczepanek.

Regarding claim **4**, Brewer teaches the switching network of claim **1**. Brewer does not explicitly teach gate means associated with each port for allowing a message into a port only if no other data is present in the port. However, Szczepanek teaches a network switching system in a ring configuration where the status of a control line (clear or backpressure) of a particular port is checked (gate means) to determine whether to

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wait or transmit a pending packet as shown in Figure 8a and spoken of on column 15, lines 1-9.

At the time of the invention, it would have been obvious to someone skilled in the art to combine the port gating of Szczepanek with the system of Brewer in order to provide effective flow control of data as spoken of on column 15, lines 1-9 of Szczepanek.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Elliott et al. (U.S. 6,587,470) is another reference pertinent to this application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Moore, Jr. whose telephone number is (571) 272-3168. The examiner can normally be reached on Monday-Friday (8:30am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached at (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael J. Moore, Jr.
Examiner
Art Unit 2666

mjm MM

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